IN THE CLAIMS

Please amend the claims as follows:

1-10. (Canceled)

11. (Currently Amended) A node on an Infiniband (IB) fabric comprising:~~The node according to claim 10, further comprising~~

a channel adapter containing at least one port providing access to the IB fabric, each port having a local identifier (LID);

a name service, the name service obtaining at least one port and at least one LID for at least one remote peer node on the IB fabric;

at least one network protocol, the at least one network protocol generating a logical address of the at least one remote peer node to send data;

an Address Resolution Protocol (ARP), the ARP mapping the logical address to a physical address, the physical address being an IEEE 802.3 Ethernet Media Access Control (MAC) address imbedded with the LID of the at least one remote peer node;

an IB local area network (IBLAN) driver, the IBLAN driver providing unicast, multicast, and broadcast capability for transfers across the IB fabric to the at least one remote peer node, the IBLAN driver sending the Ethernet MAC address and the data to the at least one remote peer node through at least one port, the at least one remote peer node appearing to reside on an Ethernet network according to the network protocol; and

a transport services library (TSL), the TSL providing connection management, work queue management, memory management, and message pool management, the ~~IB LAN~~ IBLAN driver using the TSL to establish a connection with and perform transfers to the at least one remote peer node.

12. (Currently Amended) The node according to claim [[10]] 11, further comprising an IB bus driver, the IB bus driver loading the ~~IB LAN~~ IBLAN driver at the node when the at

least one port of the channel adapter is initialized and set active, the IB bus driver receiving each LID and a LID mask for each LID from the ~~IB-LAN~~ IBLAN driver once the port is activated and assigning one LID to each at least one port.

13. (Currently Amended) The node according to claim 12, the IB bus driver using a vendorID and a deviceID to locate and load the appropriate ~~IB-LAN~~ IBLAN driver on the node.

14. (Original) The node according to claim 12, the at least one port of the channel adapter being initialized and set active by a subnet manager on the IB fabric.

15. (Original) The node according to claim 12, wherein the name service obtains the at least one port and the at least one LID for the at least one remote peer node on the IB fabric from a Subnet Management Database (SMDB), the SMDB residing on the IB fabric and providing persistent storage of subnet topology, subnet events, and subnet configuration information.

16. (Currently Amended) The node according to claim 11, wherein the maximum transmission unit (MTU) of the ~~IB-LAN~~ IBLAN driver is configurable and is set larger than the maximum packet size allowed on the IB fabric.

17. (Original) The node according to claim 16, wherein the TSL receives the data and segments the data into a packet size compatible with the IB fabric.

18. (Original) The node according to claim 11, the TSL further comprising a queue pair for each connection between the node and one at least one remote peer node, only one queue pair being used for broadcast transfers to all at least one remote peer node.

19-22. (Canceled)

23.   (New) A method, including:

at a local Infiniband (IB) node on an IB subnet, interfacing an IB protocol driver to a network protocol driver associated with a network protocol stack using a local Infiniband local area network (IBLAN) driver by emulating an Ethernet network interface card (NIC) driver at an interface between the local IBLAN driver and the network protocol driver;

receiving an outbound Ethernet frame from the network protocol driver;

embedding the outbound Ethernet frame in at least one outbound IB request packet to tunnel the outbound Ethernet frame across the IB subnet; and

causing the at least one outbound IB request packet to be sent to at least one remote IB node on the IB subnet, wherein the at least one remote IB node is configured with a remote IBLAN driver.

24.   (New) The method of claim 23, wherein the network protocol driver comprises a transport control protocol/Internet protocol driver.

25.   (New) The method of claim 23, further including:

generating a local Ethernet media access control (MAC) address at the local IBLAN driver to be used by the local IBLAN driver to emulate the NIC driver, wherein the local Ethernet MAC address includes a local IB local identifier (LID) associated with the IB protocol driver.

26.   (New) The method of claim 25, wherein the local LID is received at the local IBLAN driver from a name service component of the local IB protocol driver.

27.   (New) The method of claim 25, wherein a low-order sixteen bit field associated with the local Ethernet MAC address comprises the local IB LID.

28.   (New) The method of claim 25, wherein the at least one outbound IB request packet is sent from a local IB port on the local IB node, and wherein the local IB LID is assigned to the local IB port by a subnet manager.

29.   (New) The method of claim 23, wherein a network protocol datagram is embedded in the outbound Ethernet frame, wherein a destination Ethernet address in the outbound Ethernet frame corresponds to a remote Ethernet address extracted from a local address resolution protocol (ARP) table by the network protocol driver, and wherein the remote Ethernet address and a destination network address embedded in the network protocol datagram are associated in the local ARP table.

30.   (New) The method of claim 29, further including:

upon receiving the outbound Ethernet frame at the local IBLAN driver, extracting a destination IB local identifier (LID) embedded in the destination Ethernet address in the outbound Ethernet frame; and

populating a destination IB LID field in a local route header associated with the at least one outbound IB request packet with the destination IB LID, wherein the destination IB LID corresponds to the at least one remote IB node.

31.   (New) The method of claim 23, further including:

querying a subnet manager associated with the IB subnet from the local IBLAN driver to obtain a list of IB local identifiers (LIDs), each IB LID associated with an active port on the at least one remote IB node.

32.   (New) The method of claim 31, wherein the outbound Ethernet frame comprises at least one of a broadcast frame or a multicast frame to be broadcast to the at least one remote IB node, wherein the broadcast is effected by tunneling the outbound Ethernet frame to each IB LID on the list of IB LIDs.

33.   (New) The method of claim 32, wherein the at least one of the broadcast frame or the multicast frame comprises an address resolution protocol (ARP) request.

34.   (New) The method of claim 23, wherein the at least one remote IB node comprises a member of a multicast group.

35.   (New) The method of claim 23, further including:

receiving an inbound IB request packet at a local IB port associated with the local IB

node;

extracting an inbound Ethernet frame from a payload field in the inbound IB request

packet;

receiving the inbound Ethernet frame at the local IBLAN driver, wherein the local

IBLAN driver is associated with the local IB port; and

passing the Ethernet frame to the network protocol driver for network protocol

processing.

36.   (New) The method of claim 35, wherein the inbound Ethernet frame contains an

address resolution protocol (ARP) request.

37.   (New) The method of claim 36, wherein the outbound Ethernet frame comprises an

ARP response to the ARP request, the ARP response including a local Ethernet media

access control (MAC) address associated with the local node, wherein a local IB local

identifier (LID) assigned to the local node by a subnet manager is embedded in the local

Ethernet MAC address.

38.   (New) An article including a machine-accessible medium having associated

information, wherein the information, when accessed, results in a machine performing:

at a local Infiniband (IB) node on an IB subnet, interfacing an IB protocol driver to a

network protocol driver associated with a network protocol stack using a local Infiniband

local area network (IBLAN) driver by emulating an Ethernet network interface card (NIC)

driver at an interface between the local IBLAN driver and the network protocol driver;

receiving an outbound Ethernet frame from the network protocol driver;

embedding the outbound Ethernet frame in at least one outbound IB request packet to

tunnel the outbound Ethernet frame across the IB subnet; and

causing the at least one outbound IB request packet to be sent to at least one remote IB
node on the IB subnet, wherein the at least one remote IB node is configured with a remote
IBLAN driver.

39.   (New) The article of claim 38, wherein the information, when accessed, results in a
machine performing:

generating a local Ethernet media access control (MAC) address at the local
IBLAN driver to be used by the local IBLAN driver to emulate the NIC driver, wherein
the local Ethernet MAC address includes a local IB local identifier (LID) associated
with the IB protocol driver.

40.   (New) The article of claim 38, wherein a network protocol datagram is embedded in
the outbound Ethernet frame, wherein a destination Ethernet address in the outbound
Ethernet frame corresponds to a remote Ethernet address extracted from a local address
resolution protocol (ARP) table by the network protocol driver, and wherein the remote
Ethernet address and a destination network address embedded in the network protocol
datagram are associated in the local ARP table.

41.   (New) The article of claim 40, wherein the information, when accessed, results in a
machine performing:

upon receiving the outbound Ethernet frame at the local IBLAN driver, extracting a
destination IB local identifier (LID) embedded in the destination Ethernet address in the
outbound Ethernet frame; and

populating a destination IB LID field in a local route header associated with the at
least one outbound IB request packet with the destination IB LID, wherein the
destination IB LID corresponds to the at least one remote IB node.

42.   (New) The article of claim 38, wherein the information, when accessed, results in a
machine performing:

querying a subnet manager associated with the IB subnet from the local IBLAN

driver to obtain a list of IB local identifiers (LIDs), each IB LID associated with an active

port on the at least one remote IB node.

43.   (New) The article of claim 42, wherein the outbound Ethernet frame comprises at

least one of a broadcast frame or a multicast frame to be broadcast to the at least one

remote IB node, wherein the broadcast is effected by tunneling the outbound Ethernet

frame to each IB LID on the list of IB LIDs.

44.   (New) The article of claim 43, wherein the at least one of the broadcast frame or the

multicast frame comprises an address resolution protocol (ARP) request.

45.   (New) The article of claim 38, wherein the information, when accessed, results in a

machine performing:

        receiving an inbound IB request packet at a local IB port associated with the local IB

node;

        extracting an inbound Ethernet frame from a payload field in the inbound IB request

packet;

        receiving the inbound Ethernet frame at the local IBLAN driver, wherein the local

IBLAN driver is associated with the local IB port; and

        passing the Ethernet frame to the network protocol driver for network protocol

processing.

46.   (New) The article of claim 45, wherein the inbound Ethernet frame contains an

address resolution protocol (ARP) request.

47.   (New) The article of claim 46, wherein the outbound Ethernet frame comprises an

ARP response to the ARP request, the ARP response including a local Ethernet media

access control (MAC) address associated with the local node, wherein a local IB local

identifier (LID) assigned to the local node by a subnet manager is embedded in the local Ethernet MAC address.

48.   (New) An apparatus, including:

at least one local IBLAN driver module coupled between an IB protocol driver module and a network protocol driver module associated with a network protocol stack at a local IB node on an IB subnet, the IBLAN driver module to emulate an Ethernet network interface card (NIC) driver at an interface between the at least one local IBLAN driver module and the network protocol driver module; and

a connection services component within the IBLAN driver module to receive an outbound Ethernet frame from the network protocol driver module, to embed the outbound Ethernet frame in at least one outbound IB request packet in order to tunnel the outbound Ethernet frame across the IB subnet, and to forward the at least one outbound IB request packet to the IB protocol driver module for transmission to at least one remote IB node on the IB subnet, wherein the at least one remote IB node is configured with a remote IBLAN driver.

49.   (New) The apparatus of claim 48, wherein a local Ethernet media access control (MAC) address is generated at the local IBLAN driver to be used by the local IBLAN driver to emulate the NIC driver, and wherein the local Ethernet MAC address includes a local IB local identifier (LID) associated with the IB protocol driver.

50.   (New) The apparatus of claim 48, wherein a network protocol datagram is embedded in the outbound Ethernet frame, wherein a destination Ethernet address in the outbound Ethernet frame corresponds to a remote Ethernet address extracted from a local address resolution protocol (ARP) table by the network protocol driver, and wherein the remote Ethernet address and a destination network address embedded in the network protocol datagram are associated in the local ARP table.

51.   (New) The apparatus of claim 50, further including:

upon receiving the outbound Ethernet frame at the local IBLAN driver, extracting a

destination IB local identifier (LID) embedded in the destination Ethernet address in the

outbound Ethernet frame; and

populating a destination IB LID field in a local route header associated with the at

least one outbound IB request packet with the destination IB LID, wherein the destination

IB LID corresponds to the at least one remote IB node.

52.   (New) A system, including:

at least one local IBLAN driver module coupled between an IB protocol driver

module and a network protocol driver module associated with a network protocol stack at a

local IB node on an IB subnet, the IBLAN driver module to emulate an Ethernet network

interface card (NIC) driver at an interface between the at least one local IBLAN driver

module and the network protocol driver module; and

a connection services component within the IBLAN driver module to receive an

outbound Ethernet frame from the network protocol driver module, to embed the outbound

Ethernet frame in at least one outbound IB request packet in order to tunnel the outbound

Ethernet frame across the IB subnet, and to forward the at least one outbound IB request

packet to the IB protocol driver module for transmission to at least one remote IB node on

the IB subnet, wherein the at least one remote IB node is configured with a remote IBLAN

driver; and

a fiber optic cable to connect the local IB node to the IB subnet.

53.   (New) The system of claim 52, wherein a subnet manager associated with the IB

subnet is queried from the local IBLAN driver to obtain a list of local IB identifiers (LIDs),

each IB LID associated with an active port on the at least one remote IB node.

54.   (New) The system of claim 53, wherein the outbound Ethernet frame comprises at

least one of a broadcast frame or a multicast frame to be broadcast to the at least one

remote IB node, and wherein the broadcast is effected by tunneling the outbound Ethernet

frame to each IB LID on the list of IB LIDs.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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55.   (New) The system of claim 54, wherein the at least one of the broadcast frame or the

multicast frame comprises an address resolution protocol (ARP) request.